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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,715	09/13/2000	Stephen Joe Myers	DP-301284	7006

7590

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EXAMINER

TRAN, HIEN THI

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 02/18/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/660,715

Applicant(s)

MYERS ET AL.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figures 1A-C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

Specification

3. The disclosure is objected to because of the following informalities:

On page 6, line 8 "10" should be deleted for clarity.

Appropriate correction is required.
4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 4 the term "selectively" is vague and indefinite as it does not define which part of the catalytic converter substrate the washcoat may be disposed. See claims 2, 5, and 6 likewise.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gerhold (3,903,341).

Gerhold discloses a catalytic converter substrate comprising:

a substrate 3 having cells defined therein by thin perimeter walls

and thin interior walls, and

a catalyst washcoat selectively disposed on said substrate (col. 4, lines 5-16).

Since the claims do not recite any specific area, the catalyst coating of Gerhold would maximize substrate strength in the catalyst substrate.

Instant claims 1-2, 5-6 structurally read on the apparatus of Gerhold.

9. Claims 1-2, 4-6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Machida et al (5,494,881).

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Machida et al discloses a catalytic converter substrate comprising:

a substrate 10 having cells defined therein by thin perimeter walls 12

and thin interior walls 12, the walls having a thickness of 0.05,-.150 mm (col. 2, lines 25-40);

and

a catalyst washcoat selectively disposed on said substrate (col. 6, lines 47-66).

Since the claims do not recite any specific area, the catalyst coating of Machida et al would maximize substrate strength in the catalyst substrate.

Instant claims 1-2, 4-6, 8 structurally read on the apparatus of Machida et al.

10. Claims 1-2, 4-6, 9 are rejected under 35 U.S.C. 102(b) as being anticipated Ogawa et al (4,455,336).

Ogawa et al disclose a substrate having cells 4 defined therein by thin perimeter walls and thin interior walls, and

a washcoat selectively disposed on the peripheral area of said substrate using a mask method (col. 1, lines 6-10, col. 1, line 56 to col. 2, line 51, col. 3, line 13), the coated substrate being supported a catalyst.

Instant claims 1-2, 4-6, 8 structurally read on the apparatus of Ogawa et al.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. The art area applicable to the instant invention is that of catalytic converter.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

14. Claims 3-4, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa et al (4,455,336) in view of Machida et al (5,494,881).

The apparatus and method of Ogawa et al are substantially the same as that of the instant claims, but fail to disclose a specific thickness of the wall and the washcoat.

However, Machida et al discloses the substrate having partition walls of the same thickness as that of the instant claim.

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It would have been obvious to one having ordinary skill in the art to select an appropriate thickness for the partition walls as taught by Machida et al in the method and apparatus of Ogawa et al so as to provide an early activation for the catalyst thereof.

The specific thickness of catalyst washcoat is not considered to confer patentability to the claim. The precise thickness of the catalyst washcoat would have been considered a result effective variable by one having ordinary skill in the art. As such, without more, the claimed thickness can not be considered "critical". Accordingly, one having ordinary skill in the art would have routinely optimized the thickness of catalyst washcoat in the system to obtain the desired purification thereof (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

15. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Gerhold (3,903,341) or Machida et al (5,494,881).

The specific thickness of catalyst washcoat is not considered to confer patentability to the claim. The precise thickness of the catalyst washcoat would have been considered a result effective variable by one having ordinary skill in the art. As such, without more, the claimed thickness can not be considered "critical". Accordingly, one having ordinary skill in the art would have routinely optimized the thickness of catalyst washcoat in the system to obtain the desired purification thereof (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), and since it has been held that where the general conditions of a claim are disclosed in the prior art,

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discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Gerhold (3,903,341) or Machida et al (5,494,881) in view of Abe et al (4,294,806).

Abe et al discloses a conventionality of using a vitreous process in catalyst coating.

It would have been obvious to one having ordinary skill in the art to alternatively select an appropriate process in catalyst coating in the method of Gerhold or Machida et al for the known and expected results of obtaining the same results in the absence of unexpected results and since such method is conventional in the art and no cause for patentability here.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Hien Tran

HT
February 15, 2004

Hien Tran
Primary Examiner
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